

1 THE SUBJECT MATTER CLAIMED IS:

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3 *B* 1. *a spray-dried*  
4 ~~An~~ interferon-based dry powder composition for pulmonary delivery, said  
5 composition comprising a therapeutically effective amount of interferon in combination  
6 with a pharmaceutically acceptable carrier.

7 2. The composition of claim 1, wherein the composition is substantially free  
8 from penetration enhancers.

9  
10 3. The composition of claim 2, wherein the carrier comprises HSA.

11  
12 4. The composition of claim 3, wherein the carrier further comprises a  
13 carbohydrate bulking agent.

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15 5. The composition of claim 1, wherein 95% of the mass of the dry powder  
16 composition has a particle size of less than 10  $\mu\text{m}$ .

17  
18 6. The composition of claim 5, wherein 80% of the mass of the dry powder  
19 composition has a particle size of less than 5  $\mu\text{m}$ .

20  
21 7. A unit dosage form for pulmonary delivery of interferon, which dosage  
22 *B* form comprises a unit dosage receptacle containing *a spray-dried*  
23 ~~an~~ interferon-based dry powder  
24 composition, which composition comprises a therapeutically effective amount of an  
25 interferon in combination with a pharmaceutically acceptable carrier.

26 8. A method of treating a disease state responsive to treatment by interferon,  
27 which method comprises pulmonarily administering to a subject in need thereof a  
28 *B* physiologically effective amount of *a spray-dried*  
29 ~~an~~ interferon-based dry powder composition that  
30 comprises a therapeutically effective amount of an interferon in combination with a  
31 pharmaceutically acceptable carrier.

*a spray-dried*

1 9. A method for aerosolizing ~~an~~ <sup>a spray-dried</sup> interferon-based dry powder composition that  
2 comprises a therapeutically effective amount of an interferon in combination with a  
3 pharmaceutically acceptable carrier, which method comprises:  
4 dispersing an amount of the dry powder composition in a gas stream to  
5 form an aerosol and  
6 capturing the aerosol in a chamber having a mouthpiece for subsequent  
7 inhalation by a patient.

8  
9 10. A method for preparing an interferon-based dry powder composition that  
10 comprises a therapeutically effective amount of an interferon and a pharmaceutically  
11 acceptable carrier, which method comprises spray-drying an aqueous mixture of the  
12 interferon and the carrier under conditions to provide a respirable dry powder.

*add*  
*151*